

REMARKS

This submission is being made to amend the claims and to submit new evidence in support of patentability.

The amendments being made are the same as the amendments made in the response dated October 6, 2003, but which were not entered by the Examiner. It is requested that these amendments now be entered.

The Declaration Of Edward Rahe submitted with the response dated October 6, 2003 was considered by the Examiner in the Advisory Action; therefore, a new copy is not included.

The new evidence in support of patentability is the enclosed graph. This data was received by the undersigned attorney on December 29, 2003 from Mr. Edward Rahe. However, Mr. Rahe left for a vacation on December 30, 2003 and will not return until January 12, 2004, so there was no time to prepare a Declaration of Mr. Rahe explaining this data and why it is evidence supporting patentability. Such a Declaration will be provided as soon as possible after Mr. Rahe returns. Meanwhile, a Declaration Of Carl A. Forest attesting to the authenticity of the graph and what Mr. Rahe informed him regarding the graph is enclosed.

Claim Rejections – 35 USC §112

Claim 18 has been rejected as being indefinite because the relationship between the two bends and how this structure contributes to the "double-thick" flange was unclear. The relationship of the two bends and how this structure contributes to the "double-thick" flange has been added by amendment; thus, this rejection is believed to be overcome.

Claim 21 has been rejected as indefinite because some limitations are written as method limitations and the structure has not been positively recited. The method limitations have been removed by amendment and replaced with positive recital of the structure; therefore, this rejection is believed to be overcome.

Claim Rejections – 35 USC §103

Claims 1 – 12, 14 – 17, 22, 25 – 28, and 39 – 42 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev (US 5,30,488) in view of Fitzgerald et al. (US 4,842,241). This rejection is respectfully traversed.

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With regard to claim 1, Sobolev does disclose the use of steel in a laminate panel, as the Examiner points out. However, the disclosure of steel is minimal. In a patent with ten pages of figures and 38 columns of specification and in which 51 examples of laminates are given, steel is only used in one example, and that example failed. The Examiner argues that a similar panel with aluminum also failed and that the application discloses that another aluminum laminate panel made with a "slightly more flexible epoxy resin" did not fail, and that suggests that a steel panel made with a "slightly more flexible epoxy resin" would not fail. However, it could also be that the one made with steel failed and therefore was not reported. The point is that the disclosure, as a whole, points one skilled in the art in the direction of aluminum/plastic panels, not steel/plastic panels.

Fitzgerald et al. does not disclose that high-density polyethylene can be used in a plastic/metal concrete formwork panel. It discloses that high-density polyethylene is strong enough to be used by itself in a concrete *form*, though *only for test specimens*. Concrete formwork panels inherently must be capable of being connected to other panels and reused in many different forms. Clearly, the devices of Fitzgerald et al. are throw-away one-time use forms, and not formwork panels. The Examiner cites column 3, lines 11 – 15, of Fitzgerald et al. as stating that high-density polyethylene can be used in a "panel", but this clearly refers only to one of the parts of the form, not a metal/plastic concrete formworks panel.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991). MPEP 4142 and MPEP 2143 – 2143.03.

Here, one important limitation, the use of high-density polyethylene in a laminated metal/plastic panel, is missing, so not all of the claim limitations are taught or suggested.

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Secondly, there is no reasonable expectation of success, since the plastic core in one panel in which steel was used in Sobolev cracked under the impact test. Further, there is no reason to expect that high-density polyethylene and steel will bond well, since no such bonding is disclosed. Put in terms of the first requirement for a prima facie case, the claimed invention is not reached by the combination of the references, but rather requires a modification, i.e., the use of high-density polyethylene in a panel. This modification is not suggested in the references. In summary, when Sobolev and Fitzgerald et al. are read together, it does not emerge that a panel made out of steel and high-density polyethylene would be particularly useful for making concrete formwork panels.

While it is strongly believed that a prima facie case of obviousness has not been made out by the Examiner, even if it has, this prima facie case is overcome by the Declaration Of Edward Rahe (hereinafter "Declaration") and the attached graph. Edward Rahe is Vice-President of Engineering for the leading concrete formworks manufacturer in the United States. Mr. Rahe has tested scores of different concrete formwork panels as part of his job, and the panel described by claim 1 of this application is the best he has ever tested. As shown by the enclosed graph, the formworks panel according to the invention is about 25% better than a comparable aluminum/plastic panel. Even a 3/8-inch panel of the steel/plastic lamination is better than a 1/2-inch panel of aluminum/plastic lamination. The combination of steel facing with a high-density polyethylene core provides a concrete formwork panel that is vastly superior to all previous concrete formwork panels. See the Declaration, paragraph 8. A prima facie case of obviousness is rebuttable by proof that the claimed invention possesses unexpectedly advantageous or superior properties. MPEP 716.02, 2144.08B, and 2144.09, seventh bold heading. Moreover, the references cited by the Examiner are both over 15 years old. Clearly, if it was obvious from these references that a superior concrete formworks panel could be made of a steel/high-density polyethylene laminate, it would have been tried and now would be available commercially.

Claims 2 – 12, 14 – 17, 22, and 25 – 28 all depend on claim 1, and include all of the limitations of claim 1, and are therefore patentable at least for that reason. In addition, none of the limitations on the dependent claims are shown in the art for panels made of

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steel facing with a high-density polyethylene core. Certain of the claims, such as the foam density limitations of claims 11 and 12, include limitations nowhere disclosed in any of the references for any panel. The Examiner says that one could get these by experiment and cites *In re Boesch*. The *Boesch* facts were quite different than those at present. In *Boesch*, the claimed optimized values were all within ranges disclosed in the prior art, and the prior art suggested changing the values in the direction covered by the claims. Here, the values claimed are outside the ranges in the prior art. Likewise, all other allegations of the Examiner that specific limitations are obvious without showing a reference that suggests it, such as the limitations of claims 6 – 8, 14 – 17, and 22, are challenged on the basis that the Examiner's opinion is not a suitable replacement for a reference. *Ex Parte Nouel*, 158 USPQ 237, 239 (POBA 1967) at headnote 2.

With respect to claims 39 – 42, these claims are not addressed by the Office Action except in paragraph 21; therefore, we shall address them below.

Claim 18 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev in view of Fitzgerald et al. and further in view of Toedter (US 3,654,053). This rejection is respectfully traversed for the reasons given above with respect to claim 1, on which claim 18 depends. In addition, Toedter shows how to bend a decorative panel in two to make a panel that is twice as thick as the panel not bended. No suggestion that this can make a flange, much less a stronger flange, is included. The Examiner is using hindsight in making this combination.

Claims 19 and 20 were rejected under 35 USC 103(a) as being unpatentable over Sobolev in view of Fitzgerald et al. and further in view of Lee (US 6,295,786). This rejection is respectfully traversed for the reasons given above with respect to claim 1, on which claims 19 and 20 depend. In addition, Lee has nothing to do with concrete and the idea of even making a columnar panel is merely added as an afterthought. The Examiner is using the hindsight of the invention itself to find this combination.

Claim 23 was rejected under 35 USC 103(a) as being unpatentable over Sobolev in view of Fitzgerald et al. and further in view of Yoshida et al. (US 6,117,521). This rejection is respectfully traversed for the reasons given above with respect to claim 1, on which claim 23 depends. In addition, none of the references discloses a rib attached to a metal

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backing layer.

Claims 23 and 24 were rejected under 35 USC 103(a) as being unpatentable over Sobolev in view of Fitzgerald et al. and further in view of Gallis et al. (US 4,473,209). This rejection is respectfully traversed for the reasons given above with respect to claim 1, on which claims 23 and 24 depend.

Claims 39 – 41 were rejected under 35 USC 103(a) as being unpatentable over Sobolev. This rejection is respectfully traversed. The limitation of a foam plastic with 32% or more gas by volume is not shown or suggested in the art. The Examiner states that Sobolev does not give a range, but only shows that variation of volume of gas per unit volume of foam core layer is possible. That is not true. The exact statement of Sobolev is that "In a number of cases, core density reductions of 30% were readily achieved without loss of important laminate properties." The phrase "In a number of cases" indicates that, in the majority of cases, important laminate properties were lost. The fact that no cases of core density reductions of more than 30% were given does create a range. The statement implies that above the range, important laminate properties were lost in all cases.

In view of the foregoing, claims 1 – 12, 14 – 28, and 39 – 42 are patentable, and their reconsideration and allowance are respectfully requested. The fee for filing an RCE is enclosed. No extension of time fee is seen to be required under 37 CFR 114(d) and MPEP 1206 *Time for Filing An Appeal Brief*. If any extension of time fee is required, please consider this paper to be a request for a suitable extension of time under 37 CFR 136(a) and charge the fee to Deposit Account No. 50-1848. Further, if any other fee is required, please charge it to Deposit Account No. 50-1848.

Respectfully submitted,
PATTON BOGGS LLP

By: 

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application Serial No.:	09/993,733)	Group Art Unit:	1772
Filing Date:	November 21, 2001)	Examiner:	Augehenbaugh,
For:	Concrete Formworks And Method Of)		Walter
	Making Same)	Docket No.:	13190.101PTUS
Inventor:	Gregory D. Johnson)	Confirmation No.:	9460
)	Attachment to Paper No.:	11

DECLARATION OF CARL A. FOREST

1. I, Carl A. Forest, am currently a Partner in Patton Boggs, LLP and am the attorney prosecuting the above-identified application. All statements made herein of my own knowledge are true, and all statements made on information and belief are believed to be true.

2. In the course of preparing an appeal brief, I forwarded to Mr. Edward Rahe, Vice-President of Engineering for Symons Corporation, the portion of the Advisory Action mailed October 23, 2003 discussing his Declaration and asked him if I could discuss the Examiner's position with him.

3. On or about December 29, 2003, Mr. Rahe called me and during the discussion he informed me that he had recently tested a metal/plastic laminate concrete formwork panel. I asked him to send me the data.

4. I received the attached graph from Mr. Rahe on December 29, 2003.

5. Mr. Rahe informed me in a telephone conversation on December 29, 2003 that the entries on the graph are deflection test results on various concrete formwork panels he had tested in approximately the last three years. Further, he informed me that the entry labeled "McCormick 1/2" Steel Composite" and the entry labeled "McCormick 3/8" Face Sheet Special S/P Frame" are deflection test results for a laminated concrete formwork panel made as claimed in claims 1 and 39 of the present application, with thicknesses of 1/2 inch and 3/8 inch, respectively.


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6. Mr. Rahe informed me in the same telephone conversation that the "German 1/2" entry in the graph is an aluminum/plastic laminate concrete formwork panel. The other entries are various wood and wood laminate concrete formwork panels.

7. Mr. Rahe also provided other arguments to counter the Examiner's position, which I have incorporated into the response to which this is attached, though I will leave it to Mr. Rahe to express these arguments best.

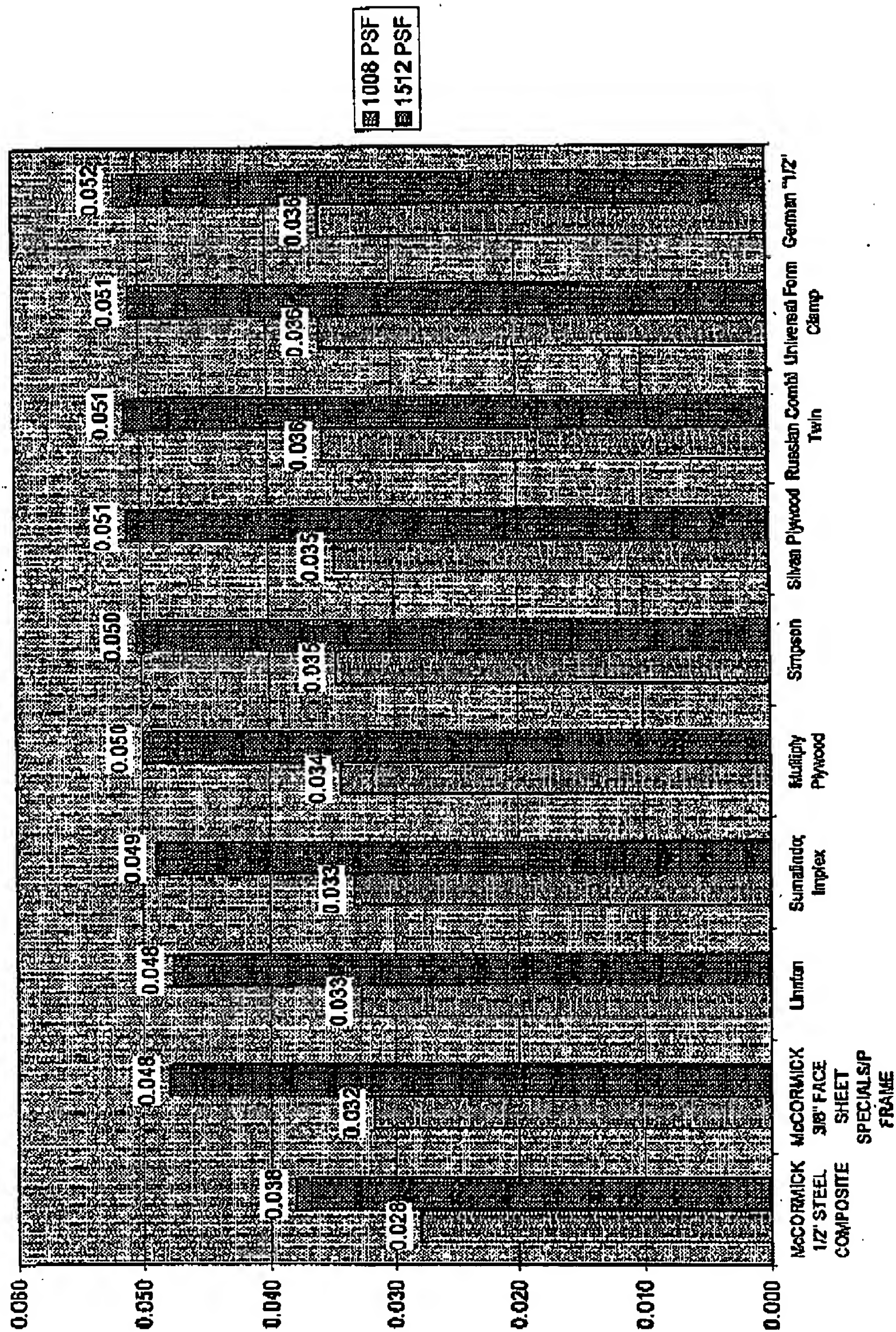
8. Mr. Rahe left on vacation on December 30, 2003 and will not be back until January 12, 2004, after which a Supplemental Declaration Of Edward Rahe will be provided to the Examiner.

9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 12/31/03 By: 
Carl A. Forest

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PLYWOOD DEFLECTION: AIR BAG TESTED PERFORMED FROM MAY 2000 THROUGH JUNE 2003



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